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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/079,284	02/19/2002	Serguei Endrikhovski	83958RLO	6627

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Thomas H. Close
Patent Legal Staff
Eastman Kodak Company
343 State Street
Rochester, NY 14650-2201

EXAMINER

HESELTIME, RYAN J

ART UNIT PAPER NUMBER

2623

DATE MAILED: 12/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/079,284	Applicant(s) ENDRIKHOVSKI ET AL.	
	Examiner Ryan J Hesseltine	Art Unit 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5, 9, 11, 12 and 16-20 is/are rejected.
- 7) ☒ Claim(s) 4, 6-8, 10 and 13-15 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/19/02</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

1. Claim 10 is objected to because of the following informalities: line 1 states, "The method of claim 9 *wherein the 1 wherein a video*". It is unclear what applicant intended in the italicized portion. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 5, 9, 11, 12, 16, 18 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Shinohara et al. (USPN 5,619,619, newly cited, hereafter Shinohara).

4. Regarding claim 1, Shinohara discloses a method for determining affective information for at least one image in an imaging system, comprising the steps of: a) displaying a digital image (via display 223) for viewing by a user (Figure 22; column 23, line 55-65); b) monitoring the facial expression of the user (via TV camera 222) as the user views the digital image (column 23, line 66-column 24, line 1, line 20-30); and c) using the facial expression of the user to determine affective (feeling) information for the digital image (column 24, line 1-12, line 31-42).

5. Regarding claim 9, Shinohara discloses a method for providing affective information for images in an imaging system, comprising the steps of: a) sequentially displaying a plurality of digital images (inherently present in any personal computer with a display) for viewing by a user (Figure 22; column 23, line 55-65); b) monitoring the facial expression of the user (via TV

Art Unit: 2623

camera 222) as the user views each of the plurality of digital images (column 23, line 66-column 24, line 1, line 20-30); and c) using the facial expression of the user to determine affective (feeling) information (column 24, line 1-12, line 31-42).

6. Regarding claim 11, Shinohara discloses a system for providing affective information for images in an imaging system, comprising: a) a digital memory (RAM) which stores a set of digital images (inherent); b) a display 223 which sequentially displays the set of digital images (inherent) for viewing by a user (Figure 22; column 23, line 55-65); c) a camera 222 for automatically measuring the user's facial expression (column 23, line 66-column 24, line 1, line 20-30); and d) a processor (computer 221, image processing board 237, neural network board 238) for processing the signal from the camera to provide affective (feeling) information for the set of digital images (column 24, line 1-12, line 31-42).

7. Regarding claim 2, Shinohara discloses the step of: d) associating the affective (feeling) information (extracting an operating instruction) with the digital image (column 24, line 1-12, line 31-51).

8. Regarding claims 3 and 12, Shinohara discloses that a video camera is used to monitor the facial expression of the user (column 29, line 34-39).

9. Regarding claim 5, Shinohara discloses that a plurality of digital images are displayed (inherent) for viewing by the user (Figure 22; column 23, line 55-65).

10. Regarding claim 16, Shinohara discloses that the system further includes a sensor (camera) for measuring the user's physiology (face, eyes, eyebrows, mouth; column 13, line 16-46).

Art Unit: 2623

11. Regarding claim 18, Shinohara discloses that the affective (feeling) information is stored in the digital memory (column 23, line 55-60; column 24, line 20-30, line 43-47).
12. Regarding claim 19, Shinohara discloses that the affective (feeling) information is stored with each digital image in a digital image file (column 23, line 55-60; column 24, line 20-30, line 43-47).
13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

14. Claims 1-3, 5, 9, 11, 12, 16 and 18-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Colmenarez et al. (USPAP 2003/0108241, newly cited, hereafter Colmenarez).
15. Regarding claim 1, Colmenarez discloses a method for determining affective information for at least one image in an imaging system, comprising the steps of: a) displaying a digital image for viewing by a user (page 1, paragraph 15); b) monitoring the facial expression of the user as the user views the digital image (page 1, paragraphs 16-17); and c) using the facial expression of the user to determine affective (mood/emotion) information for the digital image (page 1, paragraph 13; page 2, paragraphs 22 and 26).
16. Regarding claim 9, Colmenarez discloses a method for providing affective information for images in an imaging system, comprising the steps of: a) sequentially (serially) displaying a plurality of digital images for viewing by a user (page 1, paragraph 15); b) monitoring the facial expression of the user as the user views each of the plurality of digital images (page 1,

Art Unit: 2623

paragraphs 16-17); and c) using the facial expression of the user to determine affective (mood/emotion) information (page 1, paragraph 13; page 2, paragraphs 22 and 26).

17. Regarding claim 11, Colmenarez discloses a system for providing affective information for images in an imaging system, comprising: a) a digital memory (storage area) which stores a set of digital images (page 1, paragraph 14); b) a display which sequentially (serially) displays the set of digital images for viewing by a user (page 1, paragraph 15); c) a camera 206 for automatically measuring the user's facial expression (page 1, paragraphs 16-17 and 20); and d) a processor 210 for processing the signal from the camera to provide affective (mood/emotion) information for the set of digital images (page 1, paragraphs 13 and 20; page 2, paragraphs 22 and 26).

18. Regarding claim 2, Colmenarez discloses the step of: d) associating the affective (mood/emotion) information with the digital image (page 1, paragraphs 13-14; page 2, paragraph 30).

19. Regarding claims 3 and 12, Colmenarez discloses that a video camera is used to monitor the facial expression of the user (page 1, paragraphs 11 and 20).

20. Regarding claim 5, Colmenarez discloses that a plurality (set) of digital images are displayed for viewing by the user (page 1, paragraph 15).

21. Regarding claim 16, Colmenarez discloses that the system further includes a sensor (camera) for measuring the user's physiology (position of the mouth and surrounding areas of the face; page 2, paragraph 25).

22. Regarding claim 18, Colmenarez discloses that the affective (mood/emotion) information is stored in the digital memory (page 1, paragraphs 13-14; page 2, paragraphs 23 and 26).

Art Unit: 2623

23. Regarding claim 19, Colmenarez discloses that the affective (mood/emotion) information is stored with each digital image in a digital image file (page 1, paragraphs 13-14; page 2, paragraphs 23 and 26).

24. Regarding claim 20, Colmenarez discloses that the digital image file includes affective (mood/emotion) information and user identifiers for a plurality of users (page 1, paragraphs 12-13; page 3, paragraph 34).

Claim Rejections - 35 USC § 103

25. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

26. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shinohara or Colmenarez as applied to claim 16 above.

27. Regarding claim 17, neither Shinohara nor Colmenarez disclose that the sensor for measuring the user's physiology measures the user's galvanic skin response. The examiner takes Official Notice that galvanic skin response is a well-known methodology for measuring a person's physiological response. It would have been obvious to one of ordinary skill in the art at the time the invention was made to measure the user's galvanic skin response in order to measure the user's physiology to help determine affective information.

Allowable Subject Matter

Art Unit: 2623

28. Claims 4, 6-8, 10 and 13-15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form **including all of the limitations of the base claim and any intervening claims.**

29. The following is a statement of reasons for the indication of allowable subject matter: claims 4, 6-8, 10 and 13-15 recite limitations not found in the prior art of record including determining the smile size of the user while viewing a displayed image.

Conclusion

30. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. USPN 5,659,692 to Poggio et al. discloses a computer method and apparatus for video conferencing including parameters defining the degree of happiness/sadness of the mouth. USPN 6,046,773 to Martens et al. discloses an apparatus and method for decoding video images of an original video sequence consisting of a face with a mouth moving in various ways, representing smile, and changing intensity of its cheeks, representing blush. USPN 6,492,990 to Peleg et al. discloses a method for the automatic computerized audiovisual dubbing of movies wherein expression parameters include mouth width and smile. USPN 6,504,944 to Mihara et al. discloses an image recognition apparatus and method including recognizing a facial gesture or expression such as a smile or angry or distressed look.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan J Hesseltine whose telephone number is 703-306-4069. The examiner can normally be reached on Monday - Friday, 8:30 AM - 5 PM.

Art Unit: 2623

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on 703-308-6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ryan J. Hesseltine
December 15, 2004

JINGGE WU
PRIMARY EXAMINER

